

AMENDMENTS TO THE CLAIMS:

Please amend Claims 1 and 5 as follows.

1. (Currently Amended) A method of monitoring the a level of optical power in an optical waveguide comprising the steps of:
  - enclosing a length of the optical waveguide within an insulated cavity;
  - measuring the temperature  $T_1$  within the cavity;
  - measuring the temperature  $T_2$  outside the cavity; and
  - determining the level of optical power in the waveguide based on the temperature difference  $T_1 - T_2$ .
2. (Original) The method of claim 1 wherein the temperature  $T_1$  is measured over the length of waveguide.
3. (Original) The method of claim 1 wherein the temperature  $T_2$  is measured over the length of the waveguide.
4. (Original) The method of claim 1 wherein the optical waveguide comprises an optical fiber and the walls of the cavity comprise a groove within a substrate and a lid.
5. (Currently Amended) Apparatus for monitoring the a level of optical power in an optical waveguide comprising:

a substrate and lid forming therebetween an elongated insulated cavity for containing the optical waveguide, the cavity having a cross sectional area less than twice that of the waveguide;

a first temperature sensor for measuring the temperature along the waveguide within the cavity; and

a second temperature sensor for measuring the temperature along the waveguide outside the cavity.

6. (Original) The apparatus of claim 5 wherein the waveguide comprises an optical fiber and the cavity comprises a groove in the substrate.

7. (Original) The apparatus of claim 5 wherein the substrate comprises monocrystalline silicon.